

MARSHALL STAR

Serving the Marshall Space Flight Center Community

June 24, 2010

Lightfoot discusses Constellation reprioritization, FY2011

By Amie Cotton

Marshall Space Flight Center Director Robert Lightfoot held an all-hands meeting with team members June 17 to further discuss reprioritization of the Constellation Program in fiscal year 2010, the status of its implementation at Marshall Center and center planning for fiscal year 2011.

Lightfoot said that Marshall's Office of Procurement has been working with Ares Projects and other Constellation

See All-hands on page 4



From left, Marshall Space Flight Center Director Robert Lightfoot, Ares Projects Manager Teresa Vanhooser and Office of Procurement Director Byron Butler discuss the Constellation Program funding reprioritization at an all-hands meeting June 17.

STS-131 crew visits Marshall to say 'thanks for getting us into orbit'

By Sanda Martel

Crew members who flew the STS-131 space shuttle Discovery in April visited the Marshall Space Flight Center June 22 to thank the Marshall team for its role in their mission and share highlights of the 15-day flight to the International Space Station.

Commander Alan Poindexter was joined on the stage in Morris Auditorium in Building 4200 by pilot James Dutton and mission specialists Rick Mastracchio and Stephanie Wilson.

See STS-131 on page 6

Marshall Star celebrates center's 50th anniversary with special issue July 1

In celebration of the Marshall Space Flight Center's 50th anniversary July 1, the Marshall Star will publish a special anniversary issue that day. The issue will look back at the creation of Marshall and the introduction of its first director, Wernher von Braun.

Two Marshall "charter members" – Ann McNair, director of the Office of Center Operations, and John Key, a technical manager for the External Tank Project – will share the "awe moments" they've experienced at the center during the past half-century.

The Star also will feature a Director's Corner from Marshall Center Director Robert Lightfoot, and a decade-by-decade look at NASA accomplishments in which Marshall played a leading or critical role.

The keepsake edition will devote 16 pages to historical Marshall photographs – including images of President John F. Kennedy's 1962 visit to the center, the launch of the Saturn V rocket and the first space shuttle, and the first star formation captured by the powerful optics of the Chandra X-ray Observatory.

The issue will be available online at 2 p.m. June 30 at <http://marshallstar.msfc.nasa.gov/>. Classified ads will not publish July 1. They will resume July 8.

New Sci-Quest exhibit offers interactive journey through space

Marshall's Destiny, Moonbuggy, Student Launch exhibits on display at science center

By Megan Norris Davidson

Want to take a trip to Mars, or tour a full-scale future lunar habitat? Space enthusiasts can do just that – and more – through a new interactive exhibit at Sci-Quest in Huntsville.

"Space: A Journey to Our Future," which is on display now through Sept. 6, examines the history of the space program and provides a glimpse of future human space travel through multimedia displays. It is one of the largest touring exhibits ever produced on space exploration.

Exhibit highlights include:

- Mission to Mars: Through hands-on interactive displays and modules, visitors can design their own trip to Mars, and take a spin on a centrifuge space bicycle.
- 360-degree "Future Theatre": In an immersive media experience, visitors will look far into the future of exploration and deep into space, pondering mysteries to be revealed and questions to be answered.
- Space exploration artifacts: A wide range of historic artifacts from the space program will be on display, including space suits, a lunar rover tire, a camera from

the Apollo program, early fuel cells and shuttle tiles.

- Lunar Base Camp: Would-be explorers literally can step into the future and interact with elements of a simulated future base camp on the lunar surface as they walk through a full-size habitat and work pod.
- Today's Space Program: This interactive area examines the International Space Station, deep-space probes, next-generation telescopes and NASA studies in robonautics.

Marshall civil service and contractor employees and their families will receive a reduced admission price June 25-27 to the science center and the exhibit. Reduced admission to the museum is \$6 for adults and children, and \$4 for the special exhibit. Marshall team members must show their NASA-issued badge to receive the discount. Regular pricing is \$9 for adults and \$8 for children, and \$5 for the exhibit.

While at the science center, visitors also can check out Marshall's Destiny, Great Moonbuggy Race and Student Launch Projects exhibits. Marshall's walk-through mockup of the Destiny Lab is half as long as the real one on orbit. It features 12 racks, which wrap around the visitor from floor to ceiling. Each rack represents some of the science and research disciplines that can be conducted aboard the International Space Station.

The 28-foot-long, 14-foot-diameter aluminum Destiny module was built and tested at Marshall. It was delivered to the station in February 2001 by the space shuttle Atlantis crew during the STS-98 mission.

The Great Moonbuggy Race and Student Launch Projects interactive exhibits focus on two educational programs at Marshall. The annual NASA Great Moonbuggy Race offers student teams from around the globe the chance to design and build lunar rovers, and drive them through a challenging course of rugged, moon-like terrain. In the NASA Student Launch Projects rocketry challenge, student teams nationwide design and build reusable rockets that can carry working science payloads one mile high and return them safely to Earth.

The moonbuggy exhibit has two stationary bikes set up in front of screens playing a video of an actual moonbuggy race. Visitors can pedal their way through the virtual terrain – as if they were in the actual competition. The Student Launch Projects exhibit gives visitors the chance to build and launch virtual rockets through a computer program. The exhibits will be on display at Sci-Quest until the end of September.

For Sci-Quest's summer hours, visit www.sci-quest.org.

Davidson, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Space Exploration Celebration to be held July 16

The Space Exploration Celebration – formerly the Saturn/Apollo Reunion – will be held at the U.S. Space & Rocket Center in Huntsville on July 16.

The reunion is for those who worked in the U.S. space program and for citizens who support space exploration. It will begin at 5:30 p.m. in the Davidson Center for Space Exploration with a buffet barbecue dinner that will be served until 7 p.m. A brief program on current NASA projects will follow.

Tickets are \$20 for adults and \$10 for children ages 4-12 until June 30. Children 3 years old and under are free. Effective July 1, tickets will be \$25 for adults and \$15 for children. Those holding tickets may enter the museum as early as 2 p.m. July 16.

For ticket information and details about the event visit: http://www.spacecamp.com/store/Space_Exploration_Celebration.html.

Support from next generation of engineers



Six engineering students at Alabama A&M University in Huntsville presented their senior design projects at the Marshall Space Flight Center last month to center managers and the Engineering Directorate's Propulsion Systems Department. They are participating in a two-semester program called Diversity in Engineering at MSFC, in which they supported NASA projects as part of a senior design course. "Team Tridyne's" members – Aaron Beattie, seated; Tomeka Colon, standing left; and Kendeil Verrett – presented on the development of a Tridyne propellant system and thruster design for use on future spacecrafts. Tridyne is a stable, non-toxic mixture of helium with a small amount of hydrogen and oxygen that will be used for attitude control. The students said spacecrafts with Tridyne will improve performance over cold gas systems with a fairly small increase in complexity.

"Team Non-co-linear Actuator Design," or Team NCAD members are from left, students Tyler Kirby, Mia Williams and Brandon Davis. Their project focused on designing a lighter and more efficient pre-valve actuator for the liquid oxygen feedline of the Ares I upper stage main propulsion system by using parts from an existing Apollo-era pre-valve. They designed and analyzed pistons, linkages and various spring stacks such as Belleville washers. Mentoring the seniors was Chris Randall, a 2006 graduate of Alabama A&M, who is an aerospace engineer in Marshall's Valves, Actuators & Ducts Design & Development Branch.



Marshall's new Workforce Transition website is now available at <http://transition.msfc.nasa.gov/>.

elements at the center to provide companies with Constellation contracts revised work tasks and budgets, and would begin doing so today (June 17). He said it will then be up to the contractor companies to determine how to implement the new requirements and how that will affect their employees. How long implementation will take will depend on the type of contract and on the strategy of the contractor companies. Some reductions will be immediate and some will take several months.

"We are trying to do this the right way and work this with the utmost respect, dignity and professionalism as we can," said Lightfoot. "We are also making sure we are ready to work the tasks we are asked to do (for fiscal year 2011)."

The total impact to the Marshall contractor work force is not yet known, Lightfoot said. There are more than 1,700 contractors working on Constellation here.

Lightfoot said multiple constraints had already existed in the Constellation Program in fiscal year 2010, including operating under a continuing resolution – an appropriations legislation used by the U.S. Congress to fund government

agencies if a formal appropriations bill has not been signed into law by the end of the congressional fiscal year – during the first three months of the fiscal year. Then the decision was made to assess for termination liability, which created a \$990 million budget shortfall in fiscal year 2010. Of that amount, the Marshall Center has about \$144 million to deal with by de-scoping contracts and reducing other direct costs.

Termination liability assessment is a requirement in all NASA contracts to comply with the federal Anti Deficiency Act, which states that no one can obligate the government to make payments with money which has not already been authorized. It accounts for risk should a program or project be cancelled.

An estimated 30 to 60 percent reduction in NASA's agency-wide Constellation contractor work force – some 2,500 to 5,000 employees nationwide – could be affected by the funding reprioritization, Lightfoot said. The reprioritizing effort also will limit hardware purchasing and put planned procurements on hold, said Teresa Vanhooser, Ares Projects manager.

Center planning for FY2011 has been ongoing, said Lightfoot. It is

unclear whether NASA will have a new budget in the next fiscal year beginning in October, or if we will be working under a continuing resolution. The center is working to understand and prepare for both scenarios and the mission responsibilities they may bring. One action the center is taking is to extend some existing blanket purchase agreements and engineering support contracts to September 2011 so that when funding is available tasks can be initiated immediately.

Lightfoot said he has been keeping local community leaders, including Huntsville Mayor Tommy Battle, informed of happenings here and working with them to provide resources such as job fairs to team members. He said the center has created an external career transition website available at <http://transition.msfc.nasa.gov/>, is establishing an on-site Career Transition Center and is offering Employee Assistance Program services.

The video and a transcript of the all-hands meeting is available on Inside Marshall at <https://conversation.msfc.nasa.gov/>.

Cotton, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

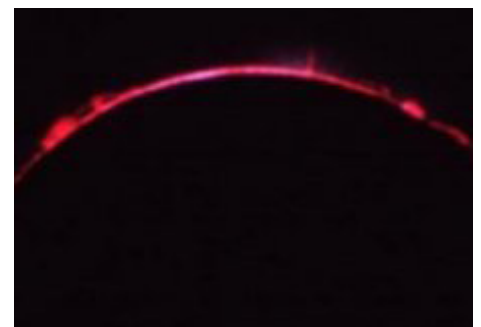
Live Web chat: An 'eclipse' is more than a movie

On June 30, the vampire/werewolf thriller eclipse will darken theaters around the world. On June 26 and July 11, nature's eclipses will temporarily darken the skies over parts of the globe – and you won't even have to buy a ticket to see the show.

The first lunar eclipse of 2010 occurs June 26, visible from much of the Americas, the Pacific and eastern Asia. A lunar eclipse only happens at full moon, and only if the moon passes through a portion of Earth's shadow.

On July 11, the second solar eclipse of 2010 occurs, achieving total eclipse within a narrow corridor across Earth's Southern Hemisphere. A solar eclipse only happens at new moon when the moon passes between Earth and the sun.

At 2 p.m. CDT June 24, solar astronomer Mitzi Adams of the Marshall Space Flight Center will answer your questions about lunar and solar eclipses, what causes them, how often they occur and the best places to see one of nature's most dramatic



celestial shows.

To join in on the chat, visit http://www1.nasa.gov/connect/chat/solar_chat.html.



Marshall Space Flight Center

Career Transition Center



Opening June 22, 2010

Building 4200/G13



Tuesday Workshops

9:00 a.m. – 2:00 p.m.

9:00 – 10:00 – Handling the emotional impact – Identifying knowledge, skills, interests and job fit

10:00 – 11:00 – Resume writing & Challenge Action Results (CAR) stories – Skills, qualities, network – USA Jobs – Reference letters

12:00 – 1:00 – Networking and follow-up – Informational interviews

1:00 – 2:00 – Interviewing skills – Professional follow-up

Thursdays

By Appointment Only

Contact Julia Seal at 544-3106 for more information or for scheduling.



"The folks at Marshall have a lot to be proud of," said Poindexter. "Without the sacrifices you make working on space shuttle propulsion elements, the Space Shuttle Program would not be the success story it is."

Poindexter mentioned the "flawless performance" of the space shuttle main engines and solid rocket boosters during the mission.

"So thank you for giving us a safe ride into orbit," Poindexter said.

Marshall is responsible for the shuttle's propulsion system, consisting of the main engines, solid rocket boosters with their solid rocket motors and the external tanks. The three high-performing, reusable liquid propellant rocket engines, along with the boosters, provide more than 7.8 million pounds of thrust to lift the space shuttle to orbit.

The astronauts were introduced by Steve Cash, manager of the Shuttle Propulsion Office, who told the astronauts, "We think of you every day and do everything we can to give you a safe ride 'uphill.'"

A 20-minute video presentation captured some important moments of their mission, which launched April 5 from Kennedy Space Center, Fla. Landing was April 20 at Kennedy.

During their mission, the crew delivered science experiments, equipment and supplies to the space station, including a multipurpose



STS-131 astronauts visiting Marshall are, from left, Stephanie Wilson, Rick Mastracchio, James Dutton and Alan Poindexter.

logistics module containing the Window Observational Research Facility, or WORF – an Earth science observatory rack. WORF, tested and managed by Marshall, includes the highest-quality optics ever flown on a human-occupied spacecraft. It will help space station crews capture some of the most detailed images ever from an orbiting spacecraft.

During the question-and-answer session that followed the program, a member of the audience asked the commander his feelings about the upcoming retirement of space shuttles.

"It's bittersweet to think about,"

said Poindexter, "but all good things must come to an end and it's better to retire it on a positive note. I think of the remarkable achievements of the Space Shuttle Program. Launching and servicing the Hubble Space Telescope and construction of the space station would have been impossible to accomplish without the shuttle."

For more information about the STS-131 mission, visit http://www.nasa.gov/mission_pages/shuttle/shuttlemissions/sts131/main/index.html

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

In celebration of Marshall's 50th anniversary

'Thunder in Huntsville' video to play in Heritage Gallery this week

As part of the 50th anniversary of the Marshall Space Flight Center, the Marshall History Office is showing a series of videos throughout the year related to the history of the center. The films will cover Mercury-Redstone, Saturn, Skylab, Apollo, space shuttle, International Space Station and more. Each video will run for one week in the Heritage Gallery in Building 4200 from 8 a.m. to 5 p.m.

This week's film is titled "Thunder in Huntsville."



GLBT Awareness Activity to be held June 25

Marshall Space Flight Center team members are invited to a GLBT Awareness Activity at 10 a.m. June 25 in Building 4200, Room P110. Guest

speaker will be James Williams, acting chief information officer at Ames Research Center in Moffett Field, Calif. Cake and punch will be served.

For more information about the Marshall GLBT Professional Collaborative Group, contact Lynn Motley at 544-7549.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Marshall Star Ad Form." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, July 8, is 4:30 p.m. Thursday, July 1.

Miscellaneous

Brahmin purse, brown leather, \$200; Coach purse, fuchsia, \$150. 256-527-3723.

Nintendo Wii, controller, Wii Sports, Super Mario Bros game, \$175. 256-698-7328

Two-person sauna, infrared heaters, Craigslist 1786963687, \$700. 256-337-2450

Lexington dresser, 10 drawers, mirror, \$200; shoes, VanEli Bibiana wedge, red, 9-1/2N, \$40. 256-464-9094

Treadmill with ski bars, folds up to save space, \$175. 256-880-9025

Trampoline, \$75. 256-233-3215

China, eight place settings, platter, large bowl, sugar, creamer, calla lily pattern, \$500. 256-653-4835

Cherry entertainment center, 5'X6', \$75; high-back cloth office chair, \$50. 256-527-3486

Dumbbell set and stand, \$400. 256-679-0188

Fender G-DEC 30W guitar amp, MIDI cable and software, \$175. 256-550-0511

Weimaraner dog, female, 3 years old, silver/gray, AKC registered with papers, \$300 obo. 256-379-3606

Playstation 3 game, Little BIG Planet, Game of the Year edition, rated E, \$30. 256-828-1234

Yamaha Clavinova CLP-110, full size keyboard, foot pedal, bench, \$750. 256-461-7411 or 256-658-6785

Alabama "action" prints, individual players, Rose Bowl fleece throws and mousepads. 256-603-0894

Outboard motor, 9.9 HP Mariner, low hours, \$475. 256-430-6897

Vehicles

2007 Honda Shadow Spirit 750C2, black/silver, windshield, lightbar, extras, 2k miles, \$5,400. 256-457-5587

2007 Honda cbr1000rr, title in hand, 3,600 miles, \$6,800 obo. 205-807-7841

2006 Suzuki Reno, blue, four-door hatchback, five speed, 17.2k miles, \$5,500. 256-503-2431

2006 Toyota Tundra double cab, black, tan interior, bed cover, 52k miles, \$17,000. 256- 837-8389

2003 VW Jetta 2.0 L, gas, auto transmission, 91k miles, \$5,675 firm. 256-572-1867

2001 Harley Super Glide FXDXT, wine/black, SE pipes, more, 10k miles, \$9,000. 256-464-9871

1999 Mercury Grand Marquis LS sedan, white, V8, leather, 40k miles, \$6,700. 256-536-6262

1998 GMC LWB, white, 176k miles, \$4,500. 256-468-9377

1992 Ford F150, 5.0-V8, auto, regular cab, \$3,200. 256-783-6106

1988 Toyota Corolla, 102k miles, \$2,200; 1989

Dodge Grand Caravan, 146k miles, \$1,700. 256-227-0339

454 diesel international tractor, \$4,500. 256-379-4010

Suzuki ATV, red, 60cc, \$675. 256-714-7336

ATV, 125cc, red, \$650. 256-714-9712

Found

Toyota key, Building 4200 south parking lot, June 9. 256-544-4680

Nice bracelet, parking lot of Building 4601. 256-544-6496

Free

Puppies , three females, four males, Eskimo Spitz, Jack Russell, 6 weeks old. 931-636-2726

Payload Operations Center builds team spirit 'Hawaiian style'

By Lori Meggs

It may not be Hawaii, but workers in the Marshall Space Flight Center's Payload Operations Center feel like it on Fridays. They wear Hawaiian shirts to build team spirit among the flight controllers. The Payload Operations Center is the command post for science on the International Space Station, coordinating daily tasks for the crew.

The Hawaiian shirt day idea came in 2005 from Sally Davis, lead flight director for Expedition 12 at Johnson Space Center in Houston. Since then, Tim Horvath, payload operations manager for Expedition 23/24 at Marshall, has followed suit keeping the tradition with each space station expedition he manages. "It allows people to be just a bit less formal one day each week and have



a little bit of fun," said Horvath. "Sometimes I even throw in a pineapple upside down cake."

Meggs, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Obituaries

Harold Mink, 84, of Huntsville died May 10. He retired from the Marshall Center in 1984 as an engineer.

John Gary Williams Jr., 74, of Hopewell died June 5. He retired from the Marshall Center in 1974 as a quality assurance specialist. He is survived by his wife, Ruby Williams.

Claude Foster Williamon, 78, of Laceys Spring died June 16. He retired from the Marshall Center in 1987 as a science technician. He is survived by his wife, Betty Jones Williamon.

Edward Noel, 77, of Huntsville died June 16. He retired from the Marshall Center in 1989 as an aerospace engineer. He is survived by his wife, Donna Noel.

MARSHALL STAR

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